

**REMARKS**

Claims 1-13 and 15-71 are pending. All claims have been amended to substituted the term "partial nicotine agonist" for the term "nicotine antagonist." According, claim 14 has been canceled. This amendment is supported throughout Applicants' specification, *e.g.*, in the original claims; and at page 8, lines 4-11.

Further, all claims have been amended to recited treatment of methods of treating "cognitive deficits in learning and memory." This amendment is supported throughout Applicants' specification, *e.g.* in the title; and at page 1, lines 14-18.

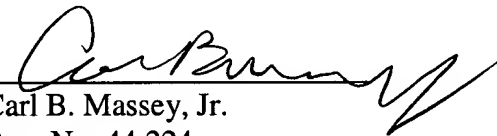
Accordingly, no new matter is added by the amendment.

Further, Applicants note that this amendment is not being made for any purpose related to patentability of the invention and is made only to claim further particular embodiments of the invention and to make clear the relationship of certain claimed subject matter with respect to Applicants' Reply to the pending Restriction Requirement.

Applicants believe that the Application is now in condition for examination and allowance. Early notice to that effect is earnestly solicited. The Examiner is invited to contact the undersigned at (336) 721-3681 regarding any question concerning this filing.

Respectfully submitted,

Date: March 29, 2004

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***Complete Listing of Claims***

1. (Currently amended) A method of treating ~~memory disorders~~ cognitive deficits in learning and memory in individuals in need thereof, the method comprising administering to the individual an effective amount of a partial nicotine ~~antagonist~~ agonist.
2. (Currently amended) The method of claim 1 wherein the partial nicotine ~~antagonist~~ agonist is mecamylamine, a mecamylamine analog, or a mecamylamine stereoisomer.
3. (Currently amended) The method of claim 2, wherein the effective amount of the partial nicotine ~~antagonist~~ agonist is 0.005-1.00 mg/kg/day.
4. (Currently amended) The method of claim 1 in which the ~~memory disorders~~ cognitive deficits in learning and memory are brought on by therapy using conventional neuroleptic drugs.
5. (Original) The method of claim 1 additionally comprising administration of an atypical neuroleptic drug.
6. (Currently amended) A method of treating cognitive deficits in learning and memory associated with learning disorders in individuals in need thereof, the method comprising administering to the individual an effective amount of a partial nicotine ~~antagonist~~ agonist.
7. (Currently amended) The method of claim 6, wherein the partial nicotine ~~antagonist~~ agonist is mecamylamine, a mecamylamine analog, or a mecamylamine stereoisomer.
8. (Currently amended) The method of claim 7, wherein the effective amount of the partial nicotine ~~antagonist~~ agonist is 0.005-1.00 mg/kg/day.
9. (Currently amended) A method of treating cognitive deficits in learning and memory associated with age-related cognitive disorders in an individual in need thereof, the method comprising administering to the individual an effective amount of a partial nicotine ~~antagonist~~ agonist.
10. (Currently amended) The method of claim 9, wherein the partial nicotine ~~antagonist~~ agonist is mecamylamine, a mecamylamine analog, or a mecamylamine stereoisomer.
11. (Currently amended) The method of claim 9, wherein the effective amount of the partial nicotine ~~antagonist~~ agonist is 0.005-1.00 mg/kg/day.
12. (Currently amended) The method of claim 9 in which the ~~cognitive disorder~~ cognitive deficits in learning and memory are caused or exacerbated by therapy using conventional neuroleptic drugs.
13. (Original) The method of claim 9 additionally comprising administering an atypical neuroleptic drug.

Please cancel claim 14 without prejudice to, or disclaimer of, the subject matter therein.

15. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.

16. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.

17. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.

18. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.

19. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.

20. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.

21. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.

22. (Previously presented) The method of claim 2, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered in a sustained or delayed release dosage form.

23. (Previously presented) The method of claim 2, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered by bronchial inhalation.

24. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.

25. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.

26. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.

27. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.

28. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.

29. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.

30. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
31. (Previously presented) The method of claim 7, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered in a sustained or delayed release dosage form.
32. (Previously presented) The method of claim 7, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered by bronchial inhalation.
33. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
34. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
35. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
36. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
37. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
38. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
39. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
40. (Previously presented) The method of claim 10, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered in a sustained or delayed release dosage form.
41. (Previously presented) The method of claim 10, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered by bronchial inhalation.
42. (Currently amended) A method for ~~improving executive function~~ treating cognitive deficits in learning and memory in a patient suffering from executive dysfunction, the method comprising administering an effective amount of mecamlamine, a stereoisomer thereof, or an analog thereof.
43. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.

44. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
45. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
46. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
47. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
48. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
49. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
50. (Previously presented) The method of claim 42, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered in a sustained or delayed release dosage form.
51. (Previously presented) The method of claim 42, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered by bronchial inhalation.
52. (Currently amended) A method for treating treating cognitive deficits in learning and memory associated in a patient suffering from attention deficit hyperactivity disorder, the method comprising administering an effective amount of mecamlamine, a stereoisomer thereof, or an analog thereof.
53. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
54. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
55. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
56. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
57. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
58. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.

59. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
60. (Previously presented) The method of claim 52, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered in a sustained or delayed release dosage form.
61. (Previously presented) The method of claim 52, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered by bronchial inhalation.
62. (Currently amended) A method for treating treating cognitive deficits in learning and memory associated in a patient suffering from bipolar disorder, the method comprising administering an effective amount of mecamlamine, a stereoisomer thereof, or an analog thereof.
63. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
64. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
65. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
66. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
67. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
68. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
69. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
70. (Previously presented) The method of claim 62, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered in a sustained or delayed release dosage form.
71. (Previously presented) The method of claim 62, wherein the mecamlamine, stereoisomer thereof, or analog thereof is administered by bronchial inhalation.